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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,715	04/27/2007	Kanji Kerai	061608-0360	5076

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EXAMINER	
MULL, FRED H	
ART UNIT	PAPER NUMBER
3662	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/584,715	KERAI ET AL.	
	Examiner	Art Unit	
	FRED H. MULL	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *31-41,43,45,46,48-57,59 and 61-65* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *31-41,43,45,46,48-57,59 and 61-65* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 June 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

1. The abstract is objected to for using the legal phraseology “means” in line 2.

2. The disclosure is objected to because of the following informalities:

On p. 11, line 6, “know” should be changed to --known--.

The attempt to incorporate subject matter into this application by reference to a hyperlink, on p. 14 is ineffective because 37 CFR 1.57(d) forbids an incorporation by reference by hyperlink or other form on browser executable code. The examiner suggest moving the sentence referring to incorporation by reference after the reference to Bluetooth specification version 1.2 but before the web address, so that it is clear that the specification is what is being incorporated by reference, and not the web address, which, as previously noted, is no longer a working link.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 31-37, 39-41, 43, 46, 50, 52, 56-57, 59, and 61-64 rejected under 35 U.S.C. 103(a) as being unpatentable over Bloebaum in view of Twitchell.

In regard to claims 31-32, 35-37, 56-57, and 61, Bloebaum discloses:

receiving at least one of timing information and location information from a cellular communications network (24, Fig. 1; ¶18, lines 7-8; ¶21-22), where ¶21-22 discloses information sent to a device for aiding; and

transmitting directly (¶10, 30-32, 35-36, where ¶10 describes mobile-to-mobile communications, ¶35 describes mobiles communicating among themselves, and ¶36 describes peer-aiding) the at least one timing information and location information to an adjacent satellite positioning device (¶19-22).

Bloebaum fails to discloses the adjacent satellite positioning device using a determined delay communications channel, to enable to adjacent satellite positioning device to account for any delay relative to communication of the at least one of timing information and location information.

Twitchell discloses using a determined delay communications channel to account for any delay relative to communication of the at least one of timing information and location information (col. 7, line 47 to col. 9, line 17), where from col. 8, lines 26-31 approximate location and time information is used to identify in-view GPS satellites to acquire, and from col. 9, lines 8-15, a communications channel time delay is used to

modify the received satellite information before use, e.g. to correct for the GPS satellites in view based on the change in time.

It would have been obvious to account for communication channel delay in Bloebaum by the method taught in Twitchell in order to speed up position determination and to determine a more precise position, as taught by Twitchell.

In regard to claim 33, Bloebaum further discloses the adjacent device being a mobile communications device, the mobile communications device comprising a wireless receiver configured to receive at least one of the said timing information and location information from a cellular communications network (22, Fig. 1; ¶19-22).

In regard to claims 34, 39, and 41, Bloebaum further discloses the mobile communications device further comprises a second wireless communications transmitter configured to transmit said at least one of the said timing information and location information to the adjacent satellite positioning device, where aided mobile, after determining its position, and then become an aiding mobile for a third mobile device.

In regard to claims 40 and 63, Bloebaum further discloses displaying the received positional estimate on a mobile communications device (¶22; screens, 22, 24, Fig. 1).

In regard to claims 43 and 59, Bloebaum further discloses a memory, wherein said positional estimates are stored in said memory (¶18).

In regard to claim 46, Bloebaum further discloses the fixed delay communication channel is a synchronized short range wireless communication channel (¶27, final sentence).

In regard to claim 50, Bloebaum further discloses the at least the said timing information and location information comprises at least one of: a base transceiver station timing signal; a base transceiver station positional estimate (¶28).

In regard to claim 52, Bloebaum further discloses the mobile communications device wireless transceiver is at least one of: a GSM transceiver; a WCDMA transceiver; a UMTS transceiver; a CDMA2000 transceiver (¶46).

In regard to claim 62, Bloebaum further discloses receiving a positional estimate from the adjacent satellite positioning device using the fixed delay wireless communications channel (¶19-22).

In regard to claim 64, Bloebaum further discloses transmitting the positional estimate over the cellular communications network (¶19, 22).

4. Claims 31-41, 43, 45-46, 48-57, 59, and 61-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over IDS document Yoneya in further view of either of {IDS document Koorapaty or Garin} and Twitchell.

In regard to claim 31, Yoneya discloses:

a wireless receiver configured to receive from a cellular communications network (communications link between CL222 and 2201, Fig. 22), and

a wireless transmitter configured to directly transmit to an adjacent satellite positioning device (communications link between CL222 and Grv).

Yoneya further discloses determining approximate timing information and location information after receiving a first satellite positioning satellite signals, which then aids in acquisition of additional satellite signals (¶728).

Yoneya further discloses the satellite positioning wireless receiver and the mobile communications device wireless transmitter are arranged to communicate between each other over a determined delay short range wireless communication channel (¶708), the Bluetooth channel.

Yoneya fails to disclose receiving at least one of timing information and location information from the cellular communications network and transmitting it to the satellite positioning device.

Koorapaty discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix and to provide sensitivity enhancements (¶4), where this aiding information is sent from the cellular communications network (signal from 40 to 20, Fig. 1).

Garin discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix, particularly for E-911 phone calls (col. 6, line 55 to col. 7, line 10), where this aiding information is sent from the “wireless communications network" (col. 6, lines 56-59), where the “wireless communications network" can be a cellular communications network (col. 3, lines 23-26).

It would have been obvious to include cellular network-based aiding in order to provide the user their position as soon as possible, rather than have the satellite positioning receiver go through each satellite until if finds a satellite that is in view as its first satellite. Aiding information allows the satellite positioning receiver to know all the satellites that should be in view before it looks for even the first satellite. As Koorapaty states: "Generally, without this aiding information, acquiring the satellite signals and computing the receiver's exact location could take much longer. This delay could have a serious impact on the performance of mobile location-based services, which tend to be time-sensitive." (¶4). Additionally, with cellular-based E-911 calls, time can be of the essence, and the sooner a location is provided to emergency personnel, the sooner they can be at the aid of the user.

Yoney, Koorapaty, and Garin fail to discloses the adjacent satellite positioning device using a determined delay communications channel, to enable to adjacent satellite positioning device to account for any delay relative to communication of the at least one of timing information and location information.

Twitchell discloses using a determined delay communications channel to account for any delay relative to communication of the at least one of timing information and location information (col. 7, line 47 to col. 9, line 17), where from col. 8, lines 26-31 approximate location and time information is used to identify in-view GPS satellites to acquire, and from col. 9, lines 8-15, a communications channel time delay is used to modify the received satellite information before use, e.g. to correct for the GPS satellites in view based on the change in time.

It would have been obvious to account for communication channel delay in Yoney by the method taught in Twitchell in order to speed up position determination and to determine a more precise position, as taught by Twitchell.

In regard to claim 35, Yoneya further discloses the satellite positioning device comprises a satellite positioning receiver (Grv, Fig. 22).

In regard to claim 36, Yoneya further discloses the satellite positioning device further comprises a wireless transceiver comprising means for receiving at least one of the said timing information and location information from the adjacent mobile communications device (communications link between Grv and CL222).

In regard to claim 37, Yoneya further discloses the satellite positioning device further comprises a satellite positioning positional estimator for providing a positional estimate dependent on the received satellite positioning signal an at least one of the said timing information and location information (¶708).

In regard to claim 52, Yoneya further discloses the mobile communications device wireless transceiver is at least one of: a GSM transceiver; a WCDMA transceiver; a UMTS transceiver; a CDMA2000 transceiver (¶666, lines 8-14).

In regard to claims 32, 61-62, and 64, Yoneya discloses:

a satellite positioning receiver (Grv, Fig. 22) configured to receive a satellite positioning signal (communications link between Grv and satellite positioning Satellite);

a wireless receiver configured to directly receive from an adjacent device (communications link between Grv and CL222); and

a satellite positioning positional estimator for providing a positional estimate (¶708).

Yoneya further discloses determining approximate timing information and location information after receiving a first satellite positioning satellite signals, which then aids in acquisition of additional satellite signals (¶728).

Yoneya further discloses the satellite positioning wireless receiver and the mobile communications device wireless transmitter are arranged to communicate between each other over a determined delay short range wireless communication channel (¶708), the Bluetooth channel.

Yoneya fails to disclose receiving at least one of timing information and location information from the cellular communications network and transmitting it to the satellite positioning device.

Koorapaty discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix and to provide sensitivity enhancements (¶4), where this aiding information is sent from the cellular communications network (signal from 40 to 20, Fig. 1).

Garin discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix, particularly for E-911 phone calls (col. 6, line 55 to col. 7, line 10), where this aiding information is sent from the “wireless communications network" (col. 6, lines 56-59), where the “wireless communications network" can be a cellular communications network (col. 3, lines 23-26).

It would have been obvious to include cellular network-based aiding in order to provide the user their position as soon as possible, rather than have the satellite positioning receiver go through each satellite until if finds a satellite that is in view as its first satellite. Aiding information allows the satellite positioning receiver to know all the satellites that should be in view before it looks for even the first satellite. As Koorapaty states: "Generally, without this aiding information, acquiring the satellite signals and computing the receiver's exact location could take much longer. This delay could have a serious impact on the performance of mobile location-based services, which tend to be time-sensitive." (¶4). Additionally, with cellular-based E-911 calls, time can be of the essence, and the sooner a location is provided to emergency personnel, the sooner they can be at the aid of the user.

Yoney, Koorapaty, and Garin fail to discloses the adjacent satellite positioning device using a determined delay communications channel, to enable to adjacent satellite positioning device to account for any delay relative to communication of the at least one of timing information and location information.

Twitchell discloses using a determined delay communications channel to account for any delay relative to communication of the at least one of timing information and location information (col. 7, line 47 to col. 9, line 17), where from col. 8, lines 26-31 approximate location and time information is used to identify in-view GPS satellites to acquire, and from col. 9, lines 8-15, a communications channel time delay is used to modify the received satellite information before use, e.g. to correct for the GPS satellites in view based on the change in time.

It would have been obvious to account for communication channel delay in Yoney by the method taught in Twitchell in order to speed up position determination and to determine a more precise position, as taught by Twitchell.

In regard to claim 33, Yoneya further discloses the adjacent device being a mobile communications device, the mobile communications device comprising a wireless receiver configured to receive at least one of the said timing information and location information from a cellular communications network (communications link between CL222 and 2201, Fig. 22).

In regard to claim 34, Yoneya further discloses the mobile communications device further comprises a second wireless communications transmitter configured to transmit said at least one of the said timing information and location information to the adjacent satellite positioning device (¶708, lines 5-10, where multiple devices can access the Bluetooth satellite positioning receiver).

In regard to claim 38, Yoneya further discloses the satellite positioning device wireless transceiver further comprises means for directly transmitting said positional estimate to the mobile communications device (communications link between Grv and CL222; ¶708, where the link is a Bluetooth connection).

In regard to claim 39, Yoneya further discloses the mobile communications device further comprises: the second wireless transceiver comprising means for receiving the said positional estimate (¶708), a Bluetooth tranceiver.

In regard to claims 40 and 63, Yoneya further discloses the mobile device further comprises a display for displaying said received positional estimate to the user (¶14, 43).

In regard to claim 41, Yoneya further discloses said mobile communications device wireless transceiver is arranged to transmit the received positional estimates over said cellular communications network (col. 6, line 55 to col. 7, line 10), where the position is sent out over the network during an e-911 phone call.

In regard to claim 43, Yoneya further discloses a memory, wherein said positional estimates are stored in said memory (¶706, 1049, 1156-1158).

In regard to claim 45, Yoneya further discloses the satellite positioning wireless transceiver and the mobile communications device second wireless transceiver are arranged to communicate between each other over an enhanced synchronised connection orientated (eSCO) communication channel (¶708), the Bluetooth channel.

In regard to claim 46, Yoneya further discloses the fixed delay communication channel is a synchronized short range wireless communication channel (¶708), the Bluetooth channel.

In regard to claim 48, Yoneya further discloses the communication channel is a Bluetooth communications channel (¶708), the Bluetooth channel.

In regard to claim 49, Yoneya further discloses the mobile communications device second wireless transceiver and the satellite positioning wireless transceiver is at least one of: a Bluetooth transceiver; a IrDA transceiver; a IEEE 802.11 transceiver (¶708).

In regard to claim 50, Koorapaty further discloses the at least the said timing information and location information comprises at least one of: a base transceiver station timing signal; a base transceiver station positional estimate (¶7).

In regard to claim 51, Yoneya further discloses the satellite positioning device further comprises a connector and the mobile communications device further comprises a connector, wherein the satellite positioning device connector is physically connected to the mobile device connector (¶708, line 7).

In regard to claim 53, Yoneya further discloses an indicator, said indicator comprising at least one of: at least one LED; a buzzer (¶662).

In regard to claim 54, it is well known to provide electronic devices, such as satellite positioning devices, with a switch arranged to switch said device on and off.

In regard to claim 55, it is well known to provide electronic devices, such as satellite positioning devices, with a battery arranged to provide a power source for said device.

In regard to claim 65, Bluetooth Specification discloses that Bluetooth is a short-range communication system (p. 13, 1st ¶) and Bluetooth communication occurs among devices that are synchronized (p. 13, section 1.1, 2nd ¶). The use of a secondary reference to show that a characteristic not disclosed in the primary reference is inherent is permitted under MPEP 2131.01(III).

In regard to claim 56, Yoneya discloses:

receiving a satellite positioning signal on a satellite positioning device (communications link between Grv and satellite positioning Satellite, Fig. 22);

directly receiving a signal from a cellular communications network on a mobile communications device (communications link between 2201 and CL222), the mobile communications device located at substantially the same location as the satellite positioning device (CL222; communication link between CL222 and Grv);

determining a positional estimate dependent on the received satellite positioning signal and the third signal on the satellite positioning device (¶708).

Yoneya further discloses determining approximate timing information and location information after receiving a first satellite positioning satellite signals, which is then sent to said mobile communications device and onto the satellite positioning device in order to aid in acquisition of additional satellite signals (¶728).

Yoneya further discloses the satellite positioning wireless receiver and the mobile communications device wireless transmitter are arranged to communicate between each other over a fixed delay short range wireless communication channel (¶708), the Bluetooth channel.

Yoneya fails to disclose receiving at least one of timing information and location information from the cellular communications network and transmitting it to the satellite positioning device.

Koorapaty discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix and to provide

sensitivity enhancements (¶4), where this aiding information is sent from the cellular communications network (signal from 40 to 20, Fig. 1).

Garin discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix, particularly for E-911 phone calls (col. 6, line 55 to col. 7, line 10), where this aiding information is sent from the “wireless communications network" (col. 6, lines 56-59), where the “wireless communications network" can be a cellular communications network (col. 3, lines 23-26).

It would have been obvious to include cellular network-based aiding in order to provide the user their position as soon as possible, rather than have the satellite positioning receiver go through each satellite until if finds a satellite that is in view as its first satellite. Aiding information allows the satellite positioning receiver to know all the satellites that should be in view before it looks for even the first satellite. As Koorapaty states: "Generally, without this aiding information, acquiring the satellite signals and computing the receiver's exact location could take much longer. This delay could have a serious impact on the performance of mobile location-based services, which tend to be time-sensitive." (¶4). Additionally, with cellular-based E-911 calls, time can be of the essence, and the sooner a location is provided to emergency personnel, the sooner they can be at the aid of the user.

Yoney, Koorapaty, and Garin fail to discloses the adjacent satellite positioning device using a determined delay communications channel, to enable to adjacent

satellite positioning device to account for any delay relative to communication of the at least one of timing information and location information.

Twitchell discloses using a determined delay communications channel to account for any delay relative to communication of the at least one of timing information and location information (col. 7, line 47 to col. 9, line 17), where from col. 8, lines 26-31 approximate location and time information is used to identify in-view GPS satellites to acquire, and from col. 9, lines 8-15, a communications channel time delay is used to modify the received satellite information before use, e.g. to correct for the GPS satellites in view based on the change in time.

It would have been obvious to account for communication channel delay in Yoney by the method taught in Twitchell in order to speed up position determination and to determine a more precise position, as taught by Twitchell.

In regard to claim 57, Garin further discloses the step of transmitting said determined positional estimate over the wireless communications link to the mobile communications device (col. 6, line 55 to col. 7, line 10), where the position is sent out over the network during an e-911 phone call.

In regard to claim 59, Yoneya further discloses the steps of; storing the received positional estimate in a memory (¶706, 1049, 1156-1158); transmitting the stored positional estimate over the cellular communications network (col. 6, line 55 to col. 7, line 10), where the position is sent out over the network during an e-911 phone call.

5. The examiner also finds the following reference(s) relevant:

Walters and Dooley, which are similar to Yoneya.

Applicant is encouraged to consider these documents in formulating their response (if one is required) to this action, in order to expedite prosecution of this application.

Response to Arguments

6. Applicant's arguments on p. 7, with respect to the 35 USC 112 rejection(s), have been fully considered and are persuasive. The rejections have been withdrawn.

7. Applicant's arguments on p. 8-9, with respect to the rejection(s) over Bloebaum have been fully considered but they are not persuasive.

Applicant argues that Bloebaum does not teach a direct device-to-device transmission between the apparatus and satellite positioning device. However, Bloebaum describes cellular communication methods including mobile-to-mobile communications (¶10), ¶35 describes mobiles communicating among themselves, and describes peer-aiding (¶36).

Twitchell has been added as a secondary reference teaching the determined delay communications channel feature.

8. Applicant's arguments on p. 9-11, with respect to the rejection(s) over Yoneya have been fully considered but they are not persuasive.

Applicant argues that Yoneya et al. do not teach the determined delay communications channel feature. However, Twitchell has been added as a secondary reference teaching this feature.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRED H. MULL whose telephone number is (571)272-6975. The examiner can normally be reached on Monday through Friday from approximately 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fred H. Mull

Examiner
Art Unit 3662

/F. H. M./
Examiner, Art Unit 3662

/Thomas H. Tarcza/
Supervisory Patent Examiner, Art Unit 3662